THE HANFORD SITE

Proposed Permit Modification in Support of the 2025ED Load-In Station Expansion

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Tank Farms Programs Division

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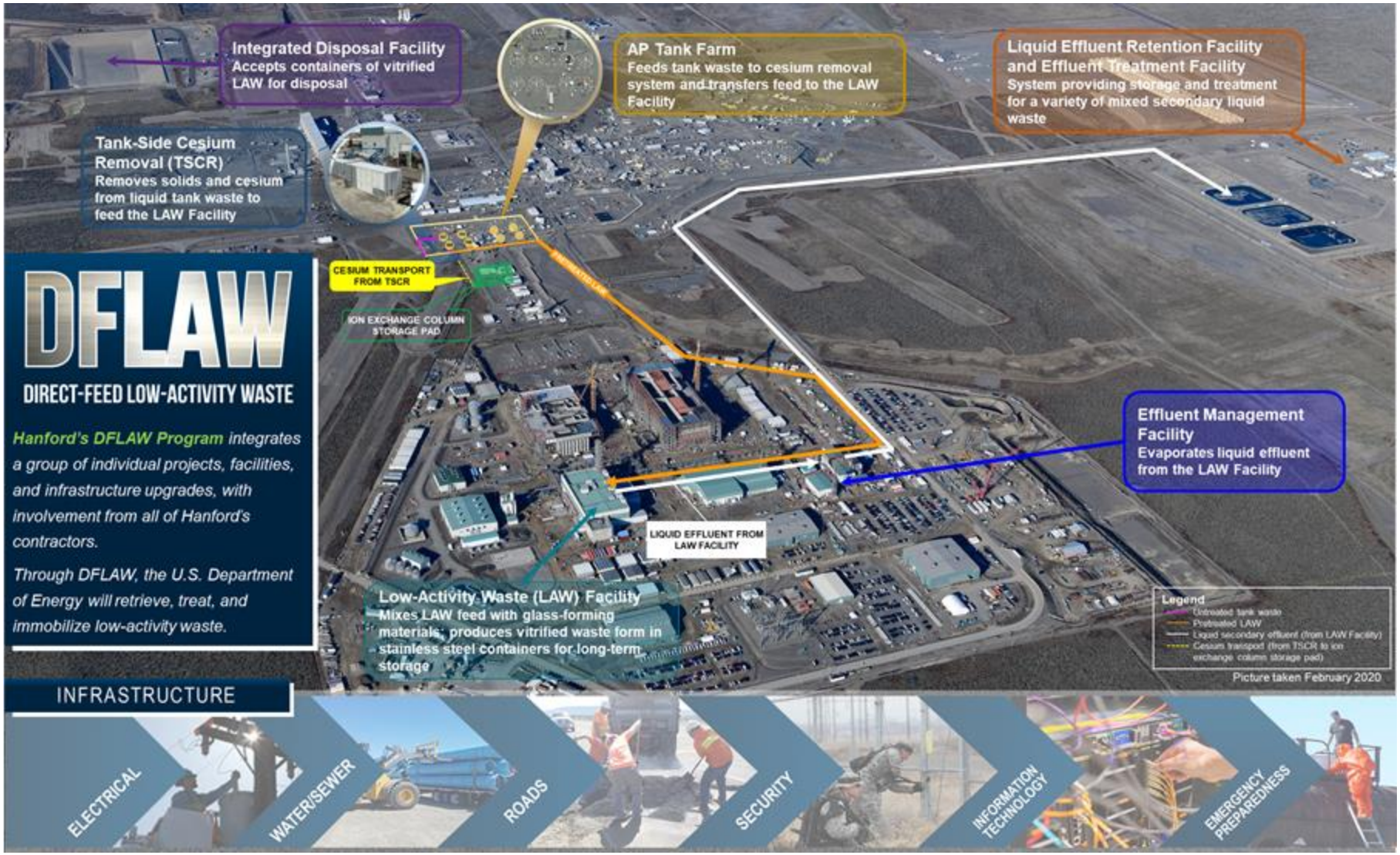
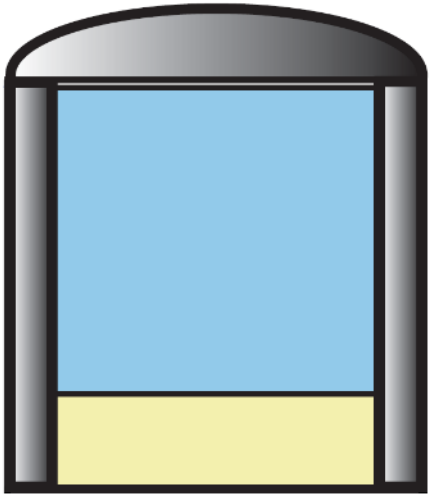
Direct-Feed Low-Activity Waste Configuration



Direct-Feed Low-Activity Waste Configuration (cont.)

Chemical and radioactive waste is stored in Hanford's tank farms. DOE will safely, efficiently and effectively treat Hanford tank waste through the Direct-Feed Low-Activity Waste (DFLAW) process to make glass.

- Secondary liquid waste will be created during the vitrification (immobilization in glass) of low-activity waste in the Waste Treatment and Immobilization Plant (WTP) during DFLAW

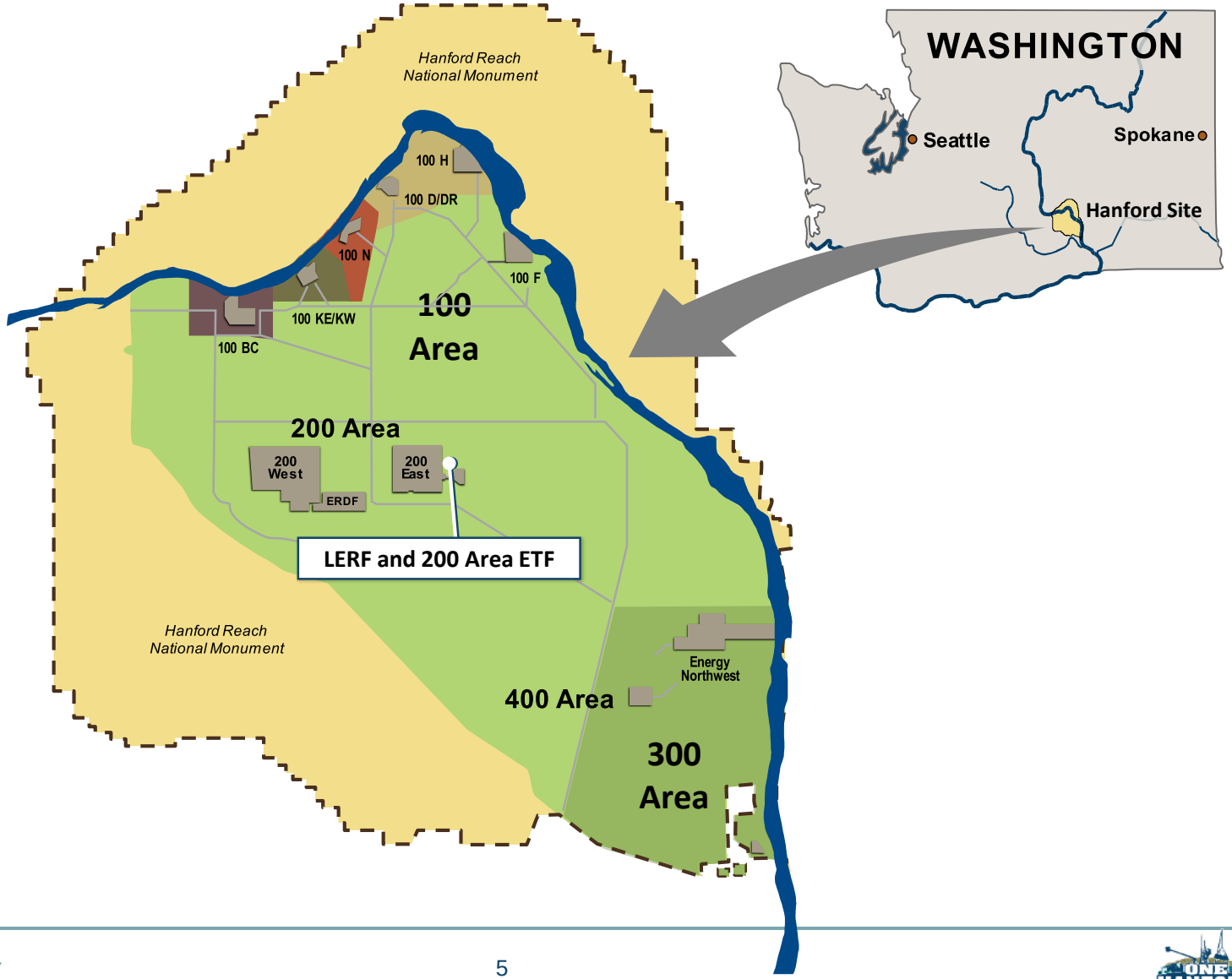


The Liquid Effluent Retention Facility (LERF) and the 200 Area Effluent Treatment Facility (ETF) will be used to manage and treat the secondary liquid waste

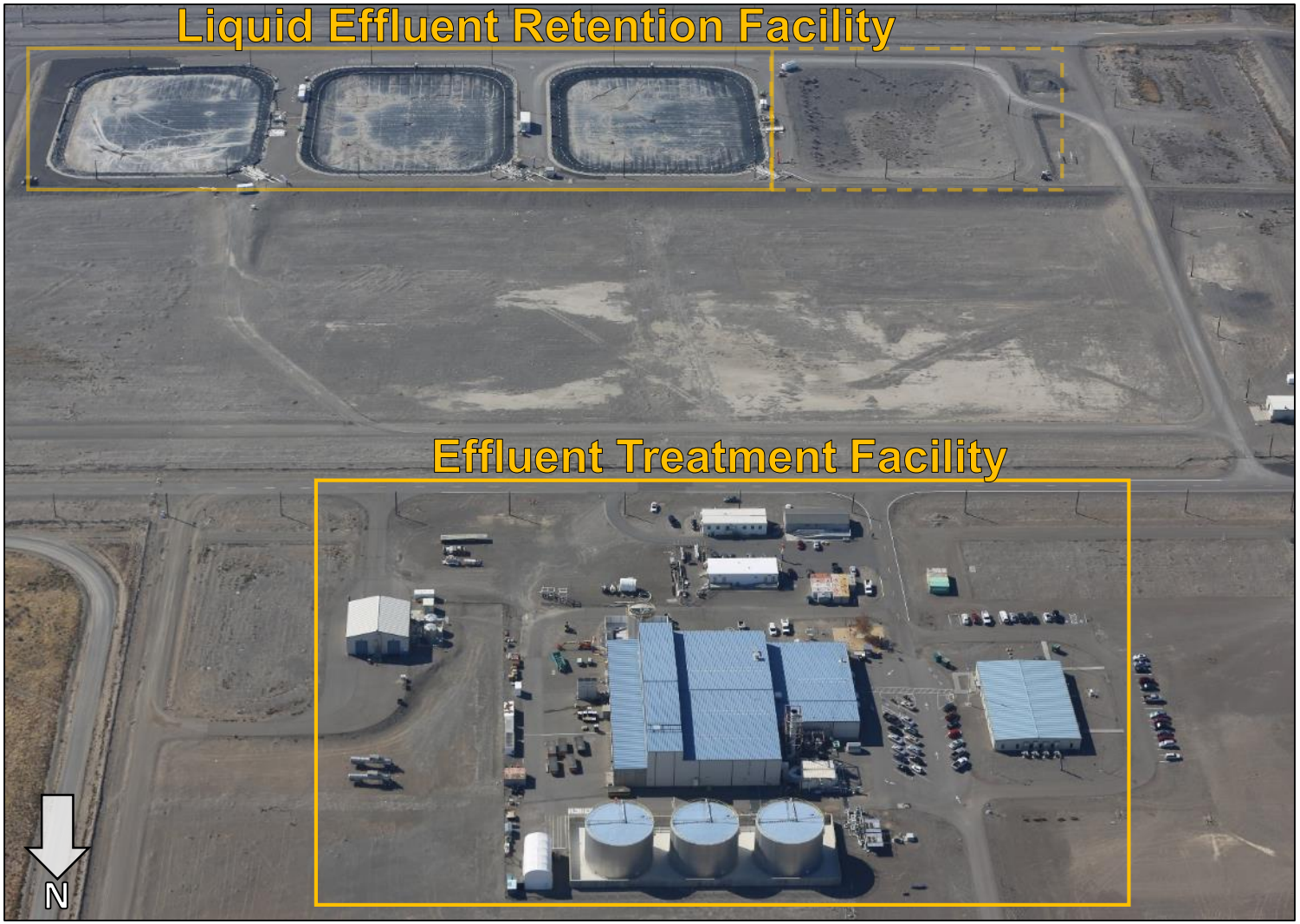
Regulatory Framework for Permitting Action

- The *Resource Conservation and Recovery Act* (RCRA) permit governs hazardous waste treatment, storage and disposal at Hanford
- The Washington State Department of Ecology (the regulator) issued the current Hanford Sitewide RCRA permit (Revision 8C), which governs hazardous tank waste treatment, storage and disposal
- The permittees (the DOE and contractor Washington River Protection Solutions) are proposing a Class 2 permit modification to the LERF and 200 Area ETF, Operating Unit Group 3

LERF and 200 Area ETF



LERF and 200 Area ETF (cont.)



2025ED Load-In Station Overview

Overhead view of the current 2025ED Load-In Station

Ground view of the current 2025ED Load-In Station

2025ED Load-In Station Overview (cont.)

The 2025ED Load-In Station provides the LERF and 200 Area ETF with the capability to accept shipments of liquid wastes from Hanford Site waste generators.

- Received waste has been evaluated as acceptable for storage and/or treatment
- Tanker trucks and other containers (e.g., totes) are used to unload liquid waste at the 2025ED Load-In Station
- Waste is managed in two truck bays located in a steel building for weather protection

Purpose of the Permit Modification

During DFLAW, the number of tanker shipments is projected to increase, primarily upon startup of the Integrated Disposal Facility.

- The 2025ED Load-In Station currently has a limited throughput and several inefficiencies that will make keeping up with the future rates a challenge
- Located within the 2025ED containment sump, Tanks 59A-TK-109 and 59A-TK-117 are no longer used
- System interlocks from this sump prevent the unloading of tankers until precipitation is pumped away

Purpose of the Permit Modification (cont.)

The building is not long enough to house an entire tractor and trailer

Support systems are inefficient and/or undersized

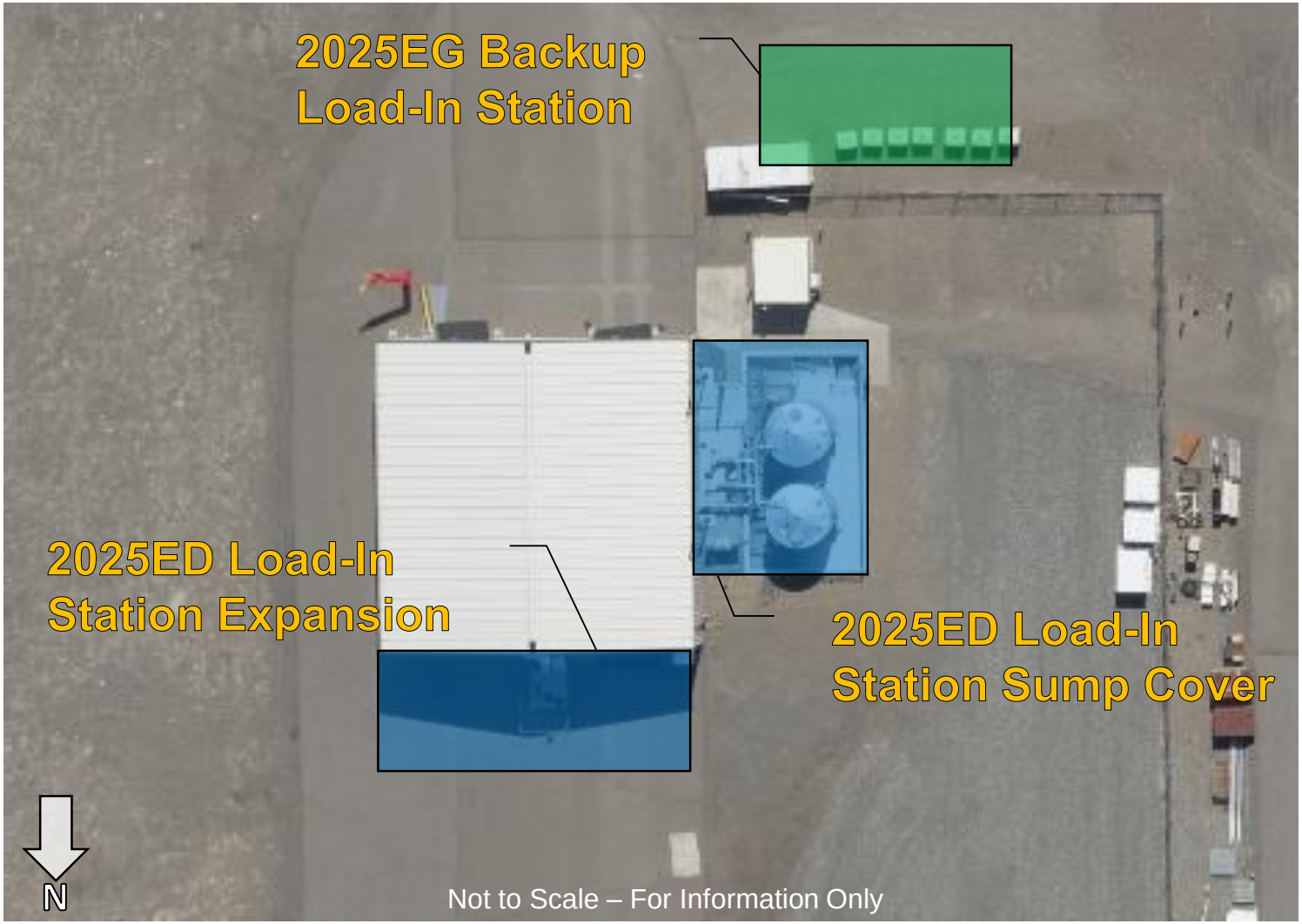
Proposed Permit Modification: Overview

Modifications are proposed that will improve efficiency and throughput, better enabling the 2025ED Load-In Station to support Hanford mission needs.

- The 2025ED Load-In Station will be expanded and support systems upgraded
- Tanks 59A-TK-109 and 59A-TK-117 will be removed and the outdoor sump area covered
- A Backup Load-In Station (2025EG) will be constructed to use while the primary facility is out of service
- The project forecasts installation of 2025EG in fiscal year 2021, and the expansion/upgrade of 2025ED in fiscal year 2022

Proposed Permit Modification: Before

Proposed Permit Modification: After

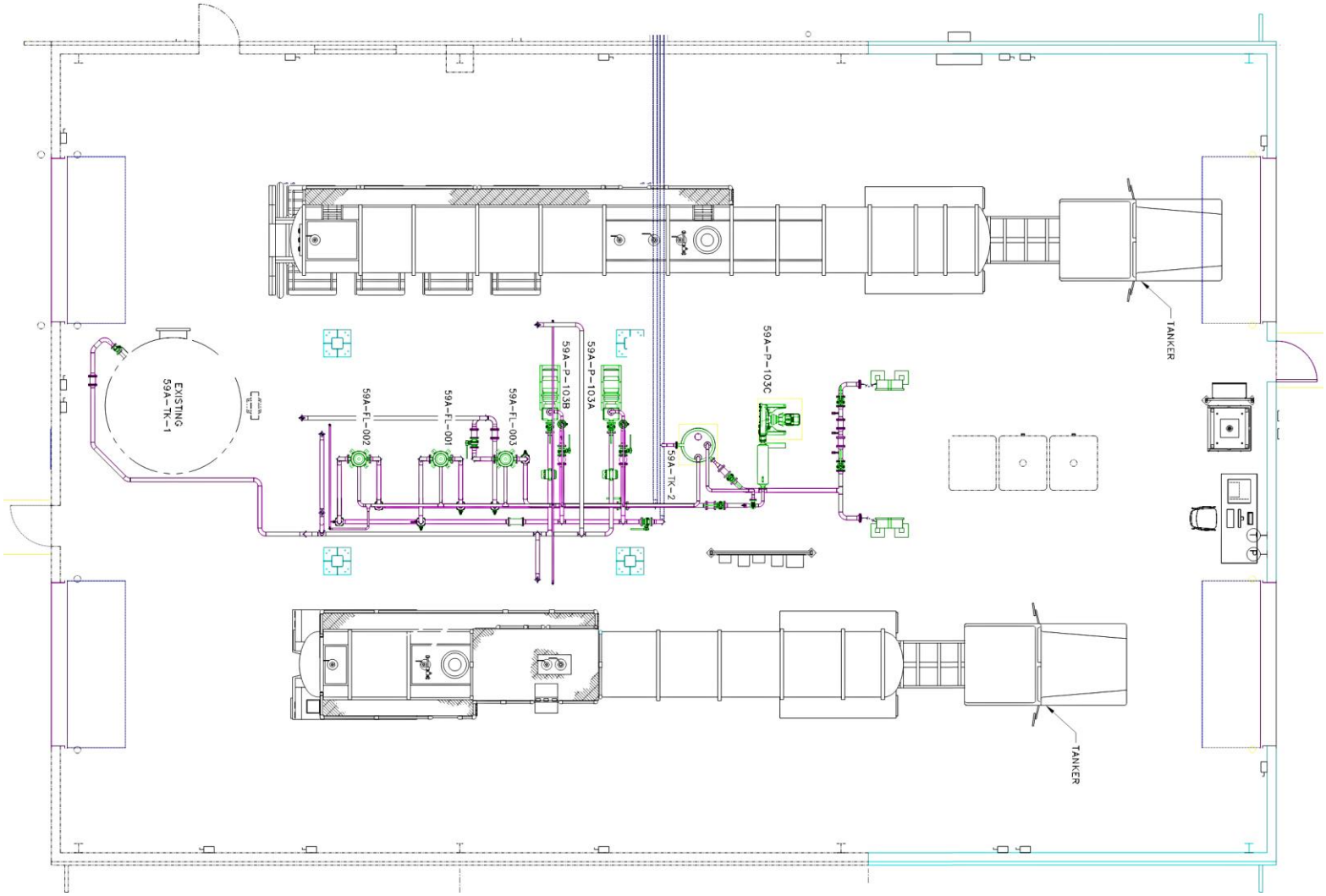


Proposed Permit Modification: 2025ED Load-In Station

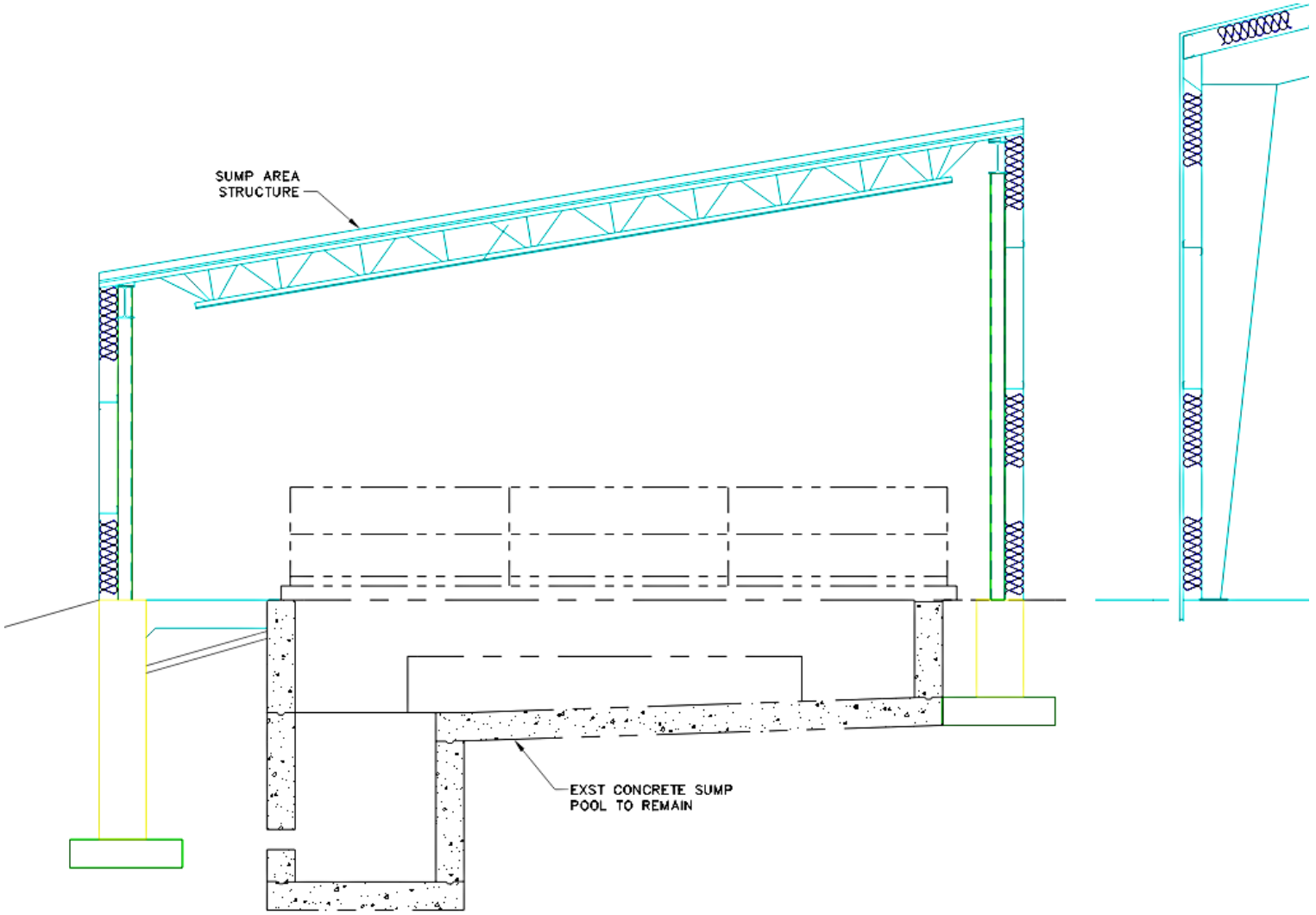
The existing 2025ED Load-In Station would be modified to include the following:

- Extending the building footprint to the north approximately 30 feet for sufficient size to fit large tankers
- Reworking concrete floor to meet the applicable secondary containment requirements to allow for unloading of large tankers. Both bays will be identical, and will drain to the west side sump area.
- Upgrading or replacing equipment (offloading system, HVAC, power, fire water system)
- Removal of unused Tanks 59A-TK-109 and 59A-TK-117, and installation of an outdoor sump enclosure

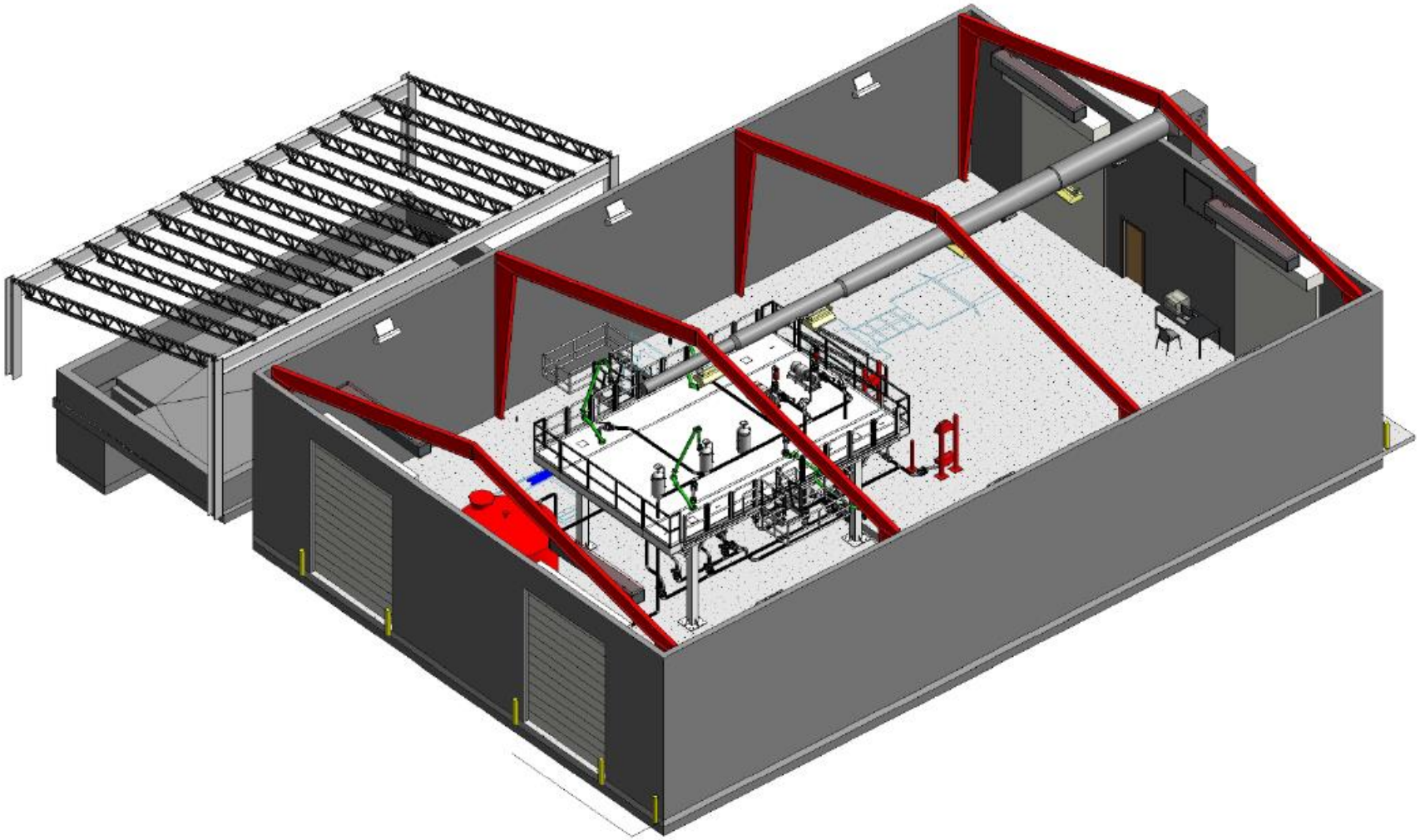
Proposed Permit Modification: 2025ED Load-In Station Expansion



Proposed Permit Modification: 2025ED Load-In Station Sump Cover



Proposed Permit Modification: Future 2025ED Load-In Station

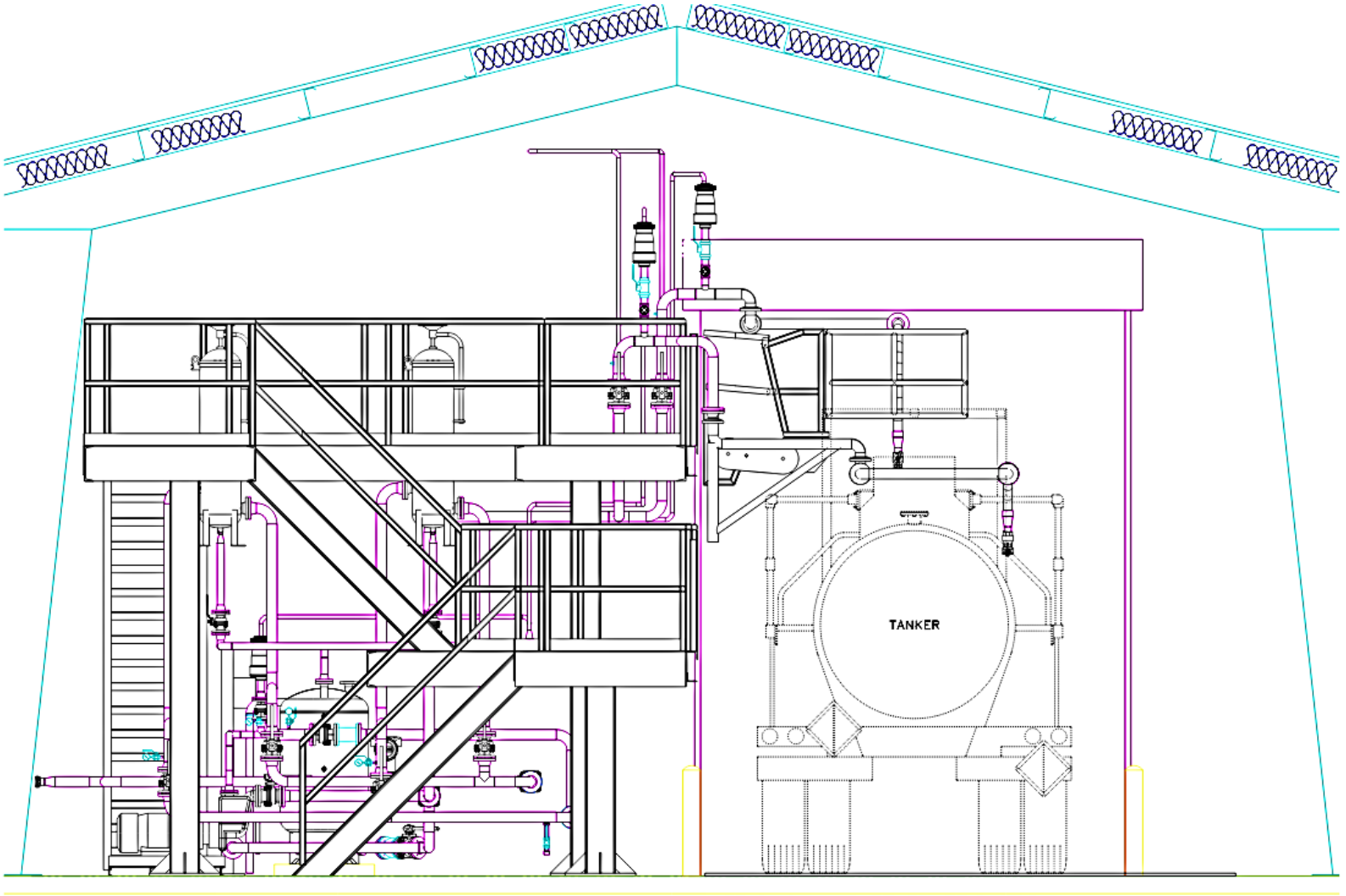


Proposed Permit Modification: 2025EG Backup Load-In Station

A new 2025EG Backup Load-In Station would be installed (as the primary facility will be out of service), to include the following:

- A new pre-engineered steel building with all the necessary equipment to unload one tanker truck at a time
- Hose-in-hose transfer lines used to connect the 2025EG facility equipment to the existing 2025ED system
- Tank systems, ancillary equipment, and secondary containment that complies with WAC 173-303-640, *Tank Systems*

Proposed Permit Modification: 2025EG Backup Load-In Station (cont.)



Proposed Permit Modification: Modified Addenda

Modified addenda for LERF and 200 Area ETF include the following:

- Addendum B, *Waste Analysis Plan*
- Addendum C, *Process Information*
- Addendum F, *Preparedness & Prevention*
- Addendum H, *Closure Plan*
- Addendum I, *Inspection Requirements*
- Addendum J, *Contingency Plan*

Refer to the corresponding Hanford Facility RCRA Permit Change Notice for a full description of the proposed changes.

Permit Modification Public Process

LERF and 200 Area ETF Class 2 Permit Modification

60-day public comment period began on Dec. 15, 2020, and is open through Feb. 13, 2021

Submit comments via mail or electronically (preferred) to the Washington State Department of Ecology at the address below:

Daina McFadden
Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, WA 99354
http://nw.ecology.commentinput.com/?id=69PsZ


Questions?
The Hanford Reach
White Bluffs Overlooking the Columbia River